

WHAT IS CLAIMED IS:

1. An apparatus, comprising:

a generally U-shaped clip comprising a base a first arm and a second arm
to form a channel;

a generally cylindrical sleeve to fit in said channel; and

an optical component positioned off center relative to a mechanical axis of
said cylindrical sleeve.

2. The apparatus as recited in claim 1 wherein said first arm is rigid and said
second arm is flexible.

3. The apparatus as recited in claim 2 wherein said second arm squeezes said
sleeve against said first arm.

4. The apparatus as recited in claim 1 wherein rotating said cylindrical sleeve
about said mechanical axis within said channel alters x and y coordinates of said
optical component.

5. The apparatus as recited in claim 4 wherein sliding said cylindrical sleeve up
and down within said channel alters the y coordinates of said optical component.

6. The apparatus as recited in claim 4 wherein sliding said cylindrical sleeve within said channel alters the z coordinates of said optical component.
7. The apparatus as recited in claim 1 wherein said optical component comprises an optical fiber.
8. The apparatus as recited in claim 1 wherein said optical component comprises a lens.
9. The apparatus as recited in claim 1 further comprising:
a plurality of U-shaped clips in positioned in series on said base.
10. The apparatus as recited in claim 1 further comprising:
a notch in said first arm to solder, epoxy or weld said sleeve in place.
11. A method for aligning an optical component, comprising:
positioning an optical component in a cylindrical sleeve a distance away from a mechanical axis of said cylindrical sleeve; and
rotating said sleeve within a channel to adjust said optical component in a x direction and a y direction.
12. The method as recited in claim 11, further comprising:
forming said channel with a generally U-shaped clip.

13. The method as recited in claim 11 further comprising:

sliding said sleeve up and down with said channel to adjust said optical component in said y direction.

14. The method as recited in claim 11 further comprising:

sliding said sleeve back and forth within said channel to adjust said optical component in a z direction.

15. The method as recited in claim 12 further comprising:

affixing said sleeve to said clip.

16. A system for aligning optical components, comprising:

a generally U-shaped clip comprising a base a first arm and a second arm to form a channel;

a generally cylindrical sleeve to fit in said channel;

a first optical component positioned off center relative to a mechanical axis of said cylindrical sleeve;

a second optical component, said first optical component aligned in translation along one degree-of-freedom with said second optical component by rotating said sleeve and aligned in translation along the two remaining degree-of-freedom by sliding said sleeve in said U shaped clip.

17. A system for aligning optical components as recited in claim 16, further comprising:

a notch in one of said first arm and said second arm for securing said sleeve to said U-clip.

18. A system for aligning optical components as recited in claim 17, wherein said first optical component comprises an optical fiber.

19. A system for aligning optical components as recited in claim 18 wherein said second optical component comprises a laser diode.

20. A system for aligning optical components as recited in claim 16 wherein said second arm is flexible.